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Contribution from the Office of Markets, Charles J. Brand, Chief.
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STUDIES OF PRIMARY COTTON MARKET CONDITIONS IN OKLAHOMA.[1]

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INTRODUCTION.

The system of handling and marketing cotton in vogue to-day is largely a series of steps added by various cotton interests to the old methods, when wagon and water were the only means of transportation. Upon this has been grafted a series of complications introduced by various cotton interests. As cotton culture has overspread the prairies of Texas and Oklahoma interior buyers have become an important factor, and interior concentration points have been established for their convenience. Some of the methods now prevailing are due wholly to the influence of the exchanges; for example, the daily change of limits and the difference sheets for grades. The trade conforms to certain requirements of each class of carriers, compressing being for the special advantage of the railroads, while patching is necessary to meet the requirements of ocean carriers. Some practices are modified to meet the wishes or rules of foreign exchanges, as the quantity or weight of tare.

Thus we see specific provisions are made to meet the needs or demands of everyone who is interested in the cotton, except those of the grower at one end and the spinner at the other. In short, practically every feature of our handling and marketing system is retained because of the insistence of some one of the numerous middle men and carriers, who have at best only a temporary interest in the cotton.

[1] The market survey here described was planned and supervised by Mr. Charles J. Brand while Physiologist in Charge of Farmers' Cooperative Cotton Handling and Marketing, Bureau of Plant Industry. The organization, general management, and execution of the work was done by Mr. Wells A. Sherman, assistant in Market Surveys, while the actual grading, stapling, and recording of the samples was done by Mr. Fred Taylor, Cotton Technologist. State Agent W. D. Bentley, Farmers' Cooperative Demonstration Work in Oklahoma, gave much helpful assistance during the progress of the work.

The spinner would like a better bale, kept under shelter until it is shipped to the mill, and with a covering which would keep the cotton clean and dry. Thus far very few bales thus wrapped and sheltered are to be found in the trade, and the industry is taxed for high insurance rates and for country damage claims instead of for proper warehousing and sheltering facilities and for careful handling.

The farmer wants a better price, and believes that if there were not so many persons and processes between himself and the spinner he could get it. As matters stand to-day there are just three things which he can do to get more from his cotton crop, and in few localities can he do all three. He is told either (1) to grow a longer staple, (2) to grow a higher-yielding variety, or (3) to pick it more carefully, so as to have a better grade. Two of these are purely cultural propositions and the third is largely dependent for success upon the kindly consideration of the ginner, who may spoil a high-grade bale by running it just after a low bale without dumping the roll, by making a water pack, or by operating with an improper adjustment of saws and brushes. After a bale of good grade has been ginned the producer is still dependent upon the generosity of the buyer to give him the price to which the higher grade is entitled. This consideration and generosity the ginners and buyers of cotton do not always show.

The farmer has no direct interest in the concentration of great quantities of cotton at compress points, nor in the process of compression, which adds nothing to the intrinsic value of his cotton. He has no direct interest in the patches added to the bale at the compress. He is not a party to the neglect which results in most of the country damage. It is true he sets no good example in this matter, but he receives no compensation for any extra care which he may bestow upon the finished bale. The city crop does not seem to constitute a direct loss to him, as he has sold the bales before most of the robbing is done, but he knows it is a tax on the trade, and he believes that all these taxes are deducted from the value of the cotton when the first offer is made him.

One thing is evident to even the casual observer. There is not a single important step or process in the entire handling and marketing scheme which owes its origin to a special consideration of the producer's interests. He is offered so much for his cotton, usually on a limit which is set by a firm which fixes it as a perfectly safe basis for its business. Competition among local buyers is his sole guaranty of fair treatment and most of the buyers are the subordinates of middlemen. A multiplicity of buyers means that just so many more men are living on the profits made on the cotton of the community after the farmers have parted with it.

GENERAL SCOPE OF THE WORK.

It is the business of this investigation to find out facts as they exist as a basis for improvement in conditions. It appears from one season's work that some economies and some more equitable rewards are within the reach of growers who will organize on a community basis for the production and proper handling of a single variety of cotton.

In order to secure more exact information concerning the conditions under which the farmer in the western end of the cotton belt markets his cotton, to develop the differences which may exist between local markets having similar freight rates to the ports, and to determine the influence of various other factors on the price of cotton in primary markets, a comprehensive survey was undertaken, beginning in October, 1912, of the primary markets in the State of Oklahoma.

This State was selected for the first work of this character because it was believed that the quality of its cotton was more uniform than that of any other State of equally large production. It was also chosen because of the perfection of the organization of the farmers' cooperative demonstration work in the State and the certainty that its local agents would render valuable assistance in the collection of the data. Assurances of cooperation had also been given by a number of the most important cotton-handling firms.

The plan of operation was to secure actual samples drawn by the agents or representatives of the department from typical bales, taking in each case a memorandum of the date and place of sale and the price paid to the producer for the bale. These samples were immediately wrapped and mailed to Oklahoma City, where they were graded and stapled, every care being taken to make this work thoroughly accurate and reliable. Two special representatives of this office were continually on the road collecting samples. The county agents of the Farmers' Cooperative Demonstration Work rendered valuable assistance, and in the aggregate secured the greater part of the samples examined. In securing this information our agents frequently visited cotton yards and ginners; access to the records was given them and they were permitted to sample as many bales as desired. In this way a total of 3,250 bales were sampled between October 25 and the middle of January, the grade [1] and staple of each being carefully worked out in Oklahoma City, the results brought to Washington for compilation, and the samples shipped there with the expectation that an interesting exhibit of the various grades and staples produced

[1] All grading was on the official cotton grades which, in descending order of grade, are: Middling fair, strict good middling, good middling, strict middling, middling, strict low middling, low middling, strict good ordinary, good ordinary.

in the State, with the prices paid, would be prepared in time for exhibition at the Oklahoma State Fair in 1913. The samples were, unfortunately, destroyed by a fire which occurred in one of the rented buildings of the Department of Agriculture.

The data resulting from this investigation are far too voluminous to be presented in a single publication, and a detailed discussion of staple-cotton production in Oklahoma and of the effect of varying lengths of staple on the price paid in different sections will not be undertaken at this time. It should, however, be distinctly understood that the facts have all been carefully scrutinized and that none of the variations in price which appear in this publication are due to variations in the length of staple of the individual bales considered. There are some markets in which the prices are rather uniformly higher than in certain other markets, the difference apparently being due to the reputation of particular compress points for shipping out cotton superior in staple or other quality to that shipped from other compress points, but every individual bale for which any premium was paid on account of its length of staple has been excluded from the tables and the discussions presented in this publication.

METHOD OF SAMPLING.

Because of the impossibility of starting this survey at the beginning of the cotton-marketing season and because so few people could be assigned exclusively to this work, no attempt was made to take the samples in such a way as to show the proportion of the various grades of cotton which were produced from this crop. It was realized that a very large number of the highest grading bales of the year's crop had been marketed before our work was undertaken and that a considerable number of bales, nearly all low grade, would be marketed after our force had returned to Washington. The plan followed was therefore to secure in each market, as nearly as possible, samples from bales representing the extreme range of grades on the market at the time. Following this plan, if the cotton yard contained only a dozen bales of high-grade cotton and a dozen bales of low-grade cotton with about a hundred bales grading about middling, the 15 or 20 bales which would be selected for sampling would probably include more bales above and below middling than of middling cotton. For this reason the number of middling bales taken at any one place on any one date appears to be small, but in a great many cases where a dozen or more bales were sampled early in the season every bale would be found to grade above middling, while later in the season a similar sampling would show very few bales grading as high as middling.

In the course of the season samples were secured from 103 towns, representing practically every cotton-producing county in the State. In some markets only a single collection was made, while in others the sampling extended over a period of two months. In the northern and eastern portions of the State, where cotton is largely sold in the seed, it was not easy to obtain a sufficient number of samples from cotton sold in the bale to form a satisfactory basis for conclusions as to the character of the market for custom-ginned cotton, but such evidence as it was possible to obtain indicates that material advantages are derived by the grower who insists upon having his cotton custom ginned, especially if he produces a quality at all superior to the average of his community. A more detailed discussion of the practice of selling cotton in the seed will be found in another place.

SPECIFIC POINTS TO BE INVESTIGATED.

Some of the questions concerning the marketing of his crop which most vitally interest the average Oklahoma farmer are:

(1) Whether his cotton is properly graded.

(2) Whether he gets a fair premium for the high grades.

(3) Whether his low grades are unjustly penalized.

(4) Whether the buyers in his town are paying as much for cotton as buyers in a neighboring town.

(5) Whether he receives the same treatment as his neighbor in his own local market.

(6) Whether he receives a fair proportion of what the spinner pays.

Some of these questions can not be finally answered as a result of this one season's work, but the data in hand enable us to answer others almost conclusively.

This investigation throws much light on the question whether the enterprising farmer who grows an improved variety and handles it throughout by improved methods secures any corresponding advantage when the bale comes on the market, and it may be said at the outset that practically no evidence has come to light that through any portion of the State any attention is paid to the variety of short staple cotton grown when fixing the price. In other words, the only advantage derived by the grower of an improved variety is the advantage which may result from its larger yield per acre, its higher percentage of lint, or some strictly cultural characteristic.

THE MARKETING OF MIDDLING COTTON.

To bring out the general relation between the price of middling cotton in different local markets in Oklahoma as compared with the Galveston closing price of the preceding day, the differences between

towns in the State and the range of prices on the same cotton on the same day in the same town, Table I is presented.

TABLE I.—*Variations in price of middling cotton in certain towns, and difference between local prices and Galveston quotations.*

Place.	Date.	Price of 4 selected bales.				Range in price.	Number of bales sampled.	Average price.	Galveston price.	Difference.
		Bale 1.	Bale 2.	Bale 3.	Bale 4.					
	1912.									
Duncan	Oct. 25	$52.50	$52.50	$52.75	$53.25	$0.75	4	$52.75	$55.00	—$2.25
Norman	...do....	53.50	54.00	54.38	54.50	1.00	7	53.95	55.00	— 1.05
Clinton	Oct. 26	51.88	52.00	52.25	52.50	.62	4	52.16	55.94	— 3.78
Ryan	...do....	51.25	53.75	54.13	54.58	3.33	14	53.63	55.94	— 2.31
Do	Oct. 30	54.50	55.00	56.25	56.25	1.75	5	55.65	56.25	— .60
Norman	...do....	53.75	53.75	54.25	54.50	.75	9	54.06	56.25	— 2.19
Do	Nov. 4	55.00	56.25	56.75	57.50	2.50	11	55.65	58.75	— 3.10
Wellston	...do....	57.50	58.25	58.25	58.75	1.25	5	58.05	58.75	— .70
Terral	...do....	55.80	58.00	59.00	59.50	3.70	5	58.06	58.75	— .69
Mountain Park	...do....	56.25	56.75	57.75	59.00	2.75	4	57.44	58.75	— 1.31
Caddo	Nov. 5	55.00	58.13	58.75	59.38	4.38	4	57.81	60.00	— 2.19
Erick	Nov. 6	52.00	55.63	57.00	58.00	6.00	6	56.20	60.00	— 3.80
Ryan	...do....	56.88	56.88	56.88	58.00	1.12	4	57.16	60.00	— 2.84
Kiowa	Nov. 7	58.13	58.50	59.13	59.13	1.00	4	58.02	60.00	— 1.98
Luther	...do....	53.75	55.00	56.25	56.25	2.50	4	55.31	60.00	— 4.69
Terral	Nov. 9	56.25	57.00	58.50	59.50	3.25	7	58.07	61.25	— 3.18
Bennington	Nov. 13	56.25	59.25	60.75	61.85	5.60	5	59.62	60.94	— 1.32
Terral	Nov. 14	57.00	58.75	59.00	59.50	2.50	4	58.56	60.73	— 1.17
Mountain Park	...do....	53.54	56.25	57.50	58.25	4.71	7	57.08	60.63	— 3.55
Arcadia	Nov. 16	55.50	57.00	59.00	59.50	4.00	4	57.75	60.00	— 2.25
Marietta	...do....	57.50	58.00	58.75	60.00	2.50	4	58.56	60.00	— 1.44
Mountain Park	Nov. 18	50.25	55.63	55.63	56.25	6.00	5	54.80	60.00	— 5.20
Marietta	Nov. 23	59.38	60.00	60.00	62.50	3.12	4	60.32	61.88	— 1.56
Snyder	Nov. 27	60.00	61.00	61.25	62.50	2.50	7	61.04	63.13	— 2.09

Only those towns appear in this table in which the collections on a given day included samples from 4 or more bales of middling cotton sold on that day. From these middling bales we have selected 4 showing the lowest price paid, 2 of the intermediate prices, and the highest price paid. These prices, figured on the basis of a 500-pound bale, appear in columns headed "Bale 1," "Bale 2," "Bale 3," and "Bale 4." The average price given in the table is based upon the total number of middling bales sampled in the given town on the given date. The range in price represents the difference between the price for bale 1 and bale 4, and shows the extreme variation which our indiscriminate system of sampling chanced to bring to light. The Galveston price of the 500-pound bale, based on the closing quotations of the preceding day, is also shown, and the difference between the average price in each town and the corresponding Galveston price is also shown. In a general way these differences, while extremely irregular, are less than the cost of compression, insurance, and freight to the port, showing very clearly that for some reason not obvious a very large part of the Oklahoma crop sells for some premium above Galveston quotations. Various important cotton interests allege that these quotations are always below the average spot transactions of the day at the port.

The entries in this table are made in order of date, and it will be noted that some towns appear more than once. This occurs when the samplings on different dates each happened to include 4 or more bales of middling. In each case it will be noted that the difference between the average price of the bales sampled by us and the Galveston price is by no means similar on different dates. Thus the difference between the average price of 7 middling bales sampled in Norman on October 25 and the closing Galveston price for October 24 is $1.05 per bale. On October 30 the average price of 9 middling bales sampled at Norman is found to be $2.19 less than the corresponding Galveston price. On November 4 the average of 11 middling bales was $3.10 below. On the same day 5 middling bales sampled in Terral were found to average within 69 cents of the Galveston quotations, but 5 days later, on November 9, the average price of 7 middling bales dropped to $3.18 below the Galveston value. At the end of another 5-day period, on November 14, the average of 4 middling bales taken at random was within $1.17 per bale of the same port price.

The most striking fact brought out by this table, however, is the extremely wide range in prices paid for bales of identical grade in the same markets on the same days. The fact should be borne in mind that there is every reason to believe that actual variations in price were much more pronounced than those here shown. In two cases only have we sampled more than 10 middling bales, and in most cases only 4 or 5. In many of these markets there were probably sold from 20 to 200 bales of middling cotton in a single day, and the chances are very remote that we happened in any particular case to secure data upon either the highest or the lowest price paid. It is with the utmost confidence, then, that we state that the range in price here shown is very much less than that which actually occurs for the same grade of cotton on the same day in most of the primary markets in Oklahoma.

A glance at the table shows that this condition of widely varying prices paid for middling cotton is not localized, but occurs in every part of the State. The extreme variations shown in column 5, Table I, are: A difference of $6 between bale 1 and bale 4 at Erick, in Beckham County, on November 6, and a similar variation at Mountain Park, in Kiowa County, on November 18; these towns are both in the western section of the State; but the difference of $5.60 between bale 1 and bale 4 at Bennington, in Bryan County, on November 13, and a variation of $4.38 between the price of 2 bales of middling in Caddo, also in Bryan County, on November 5, and of $4 at Arcadia, Oklahoma County, on November 11, show conclusively that similar conditions exist in the southeastern and central portions of the State. It will be observed that while 4 or more middling bales were sampled at Mountain Park on three different days, in no case was the range

in price less than $2.75, while 3 similar samplings in Norman developed differences of only 75 cents among 9 middling bales on October 30, $1 among 7 middling bales on October 25, and a range of $2.50 among 11 middling bales on November 4. It is notable that the narrowest range of prices shown on middling cotton in any one town on any one day is 62 cents at Clinton on October 26, and this is probably explained by the fact that all 4 of the middling bales sampled in Clinton on that date were purchased by the same buyer. In all the other figures presented in this table great care has been taken to avoid including any bales which were handled as parts of round lots. Of course we have no means of knowing that in every case all of the bales which we have found to grade middling were so graded in the first transaction; in fact, the wide range in prices would seem to indicate that the price on a great many middling bales must have been seriously depressed for some reason which our critical examination of the samples failed to develop.

This discussion of the variation in the price of middling cotton might be continued and emphasized by numerous citations from collections which include smaller numbers of middling bales. Three examples will suffice to show that these irregularities are even more widespread than Table I shows. For instance, the collection of samples from about a dozen bales which had been accumulated in a dealer's yard at Lone Wolf, Kiowa County, and which were purchased on almost as many different dates, showed a difference of $2.50 in the prices paid for 2 bales of middling cotton on the same date. Of a similar lot sampled at Cordell, in Washita County, which had been purchased just one day later than the bales at Lone Wolf, a difference of $5 per bale was found. A collection from the street sales at Marietta on December 4, when most of the cotton was low grade and only 2 bales of middling were found, showed that one grower received $5 more than the other for his middling bale. When such variations in the price of middling cotton are developed by the random sampling of 2 or 3 bales of that grade in a town, it is almost appalling to consider the injustices which must be done in the aggregate in transactions involving only the best-known grade of cotton and that upon which the daily quotations are based and the daily purchasing limits set.

An examination of the results of this investigation indicates that somewhat greater irregularities occur in the handling of the higher and lower grades than those shown for middling cotton, the most notable being in the very low grades, as shown by Tables II, III, IV, and V. The fact that the price of middling is often more variable than any other is brought out by a further analysis of the figures for the samples taken at Cordell from the bales sold on November 8. A total of 13 bales were sampled. Of these, 3 were middling, and the

extreme variation in price among them was $5; 3 bales were strict middling, and the extreme variation in price among them was $3.75; 5 bales graded strict low middling, and the extreme range in price was $2.50; 1 bale of good middling brought $60, the highest price among these 13 bales. This would indicate that the local market had some accurate appreciation of grades were it not for the fact that a low middling spotted, the poorest bale of the 13, brought exactly the same price.

The facts summarized in this chapter seem to furnish a definite answer to one of the questions in which every grower has a right to be interested and show that neighbors selling middling cotton in the same market on the same day do frequently receive radically different prices, involving great injustice to one or the other.

IRREGULARITIES IN PRICES PAID IN SAME MARKETS ON THE SAME DATES FOR IDENTICAL COTTON.

As throwing further light on the extent to which distinctions are made between grades and the uniformity or lack of uniformity of prices paid for identical grades in primary markets, brief tables have been prepared, including 21 different towns, to show the differences in price between 2 bales of identical grade sold in these markets on the same dates. These towns cover geographically almost the entire cotton-producing area of the State. The tables have been separated by grades, tabulations being made for strict middling, low middling, and strict low middling, while table V includes the highest and lowest grades and various tinges. Tables II, III, and IV have been arranged by dates on which the sales recorded took place, Table V in descending order of grades.

TABLES II, III, IV, AND V.—*Variations in prices paid for 500-pound bales of same standard grade on given dates in certain selected towns.*

II.—STRICT MIDDLING COTTON.

Date.	Place.	Variation.	Date.	Place.	Variation.
1912.			1912.		
Oct. 29	Purcell	$2.50	Nov. 14	Terral	$3.50
Nov. 2	Terral	3.00	16	Wanette	4.25
4	Erick	5.75	18	Marietta	3.25
9	Okemah	2.00	18	Okemah	2.50
11	Mountain Park	7.25			

III.—LOW MIDDLING COTTON.

Date.	Place.	Variation.	Date.	Place.	Variation.
1912.			1912.		
Nov. 7	Terral	$4.50	Nov. 26	Porter	$3.75
9	Erick	5.00	27	Hobart	5.00
9	Terral	5.50	29	Norman	6.25
11	Mangum	9.38	Dec. 30	Marietta	2.20
12	Terral	12.50			

IV.—STRICT LOW MIDDLING COTTON.

Date.	Place.	Variation.	Date.	Place.	Variation.
1912.			1912.		
Nov. 2	Terral	$4.20	Nov. 18	Okemah	$2.50
4	Erick	4.69	21	Mountain Park	3.75
5	Caddo	4.75	25	Norman	3.75
7	Snyder	6.75	26	Porter	4.37
9	Erick	6.25	30	Norman	5.00
9	Terral	4.50	Dec. 2	Duncan	10.00
11	Wellston	2.50	18	Waurika	3.00

V.—HIGH AND LOW GRADES AND TINGES.

Grade.	Place.	Date.	Variation.
		1912.	
Good middling	Purcell	Oct. 30	$5.00
Strict middling tinged	Noble	Nov. 21	5.00
Do	Byars	...do	5.00
Do	Durant	Dec. 4	5.00
Do	Lawton	Dec. 12	5.00
Low middling tinged	Madill	Dec. 20	7.50
Strict good ordinary	Terral	Nov. 8	7.00
Good ordinary	Mangum	Nov. 7	19.25

It will be observed that certain towns appear in all of these tables and in some of them more than once. This is because our collections were made in these places in sufficient volume and including sales on enough different dates to show that the conditions indicated were not confined to any particular period in the crop year. Wide variations in the price for identical cotton occurred almost daily throughout the season and cover every grade and quality of cotton offered. As was pointed out in the discussion of the variation in prices of middling, it is always to be remembered that our figures are based on such a small proportion of the total sales in any one town that it is extremely unlikely that the greatest variation which we show in any case is as great as that which actually occurred many times during the season in the particular town discussed and in the surrounding towns. A general inspection of these tables will show that the extreme variation found in the price of 2 bales of strict middling on any one date in the same market occurred at Mountain Park on November 11, when 1 strict middling bale brought $7.25 more than another, the widest variation brought to our attention in the price paid for middling at any one place and date having been $6.

Dropping to low middling, the second grade below middling, we note that, on November 11, 2 bales of this grade sold in Mangum at a difference in price of $9.38; that the next day in Terral there was a discrepancy of $12.50 between 2 such bales; and that in Norman, on November 29, 2 low middling bales differed in price by $6.25.

The strict low middling table shows that, on November 7, 2 identical bales differed in price by $6.75 at Snyder; two days later, 2 similar

bales sold at a difference of $6.25 at Erick; while on December 2, at Duncan, a difference of $10 was noted between the prices paid for 2 strict low middling bales.

In Table V, showing miscellaneous grades and tinges, no instance has been included which did not involve a difference of 1 cent per pound or $5 per bale in price, and such differences were noted for good middling cotton, the highest grade recognized by the trade in Oklahoma, and for strict middling tinged. On 2 low middling tinged at Madill on December 20 the difference in price was $7.50, while 2 good ordinary bales sold in Mangum on November 7, the one for 7.50 cents and the other for 11.35 cents per pound, or a difference of $19.25 between the 2 bales. A close inspection of these figures seems to furnish some justification for the widespread popular belief among the farmers in Oklahoma that their low grades are not sold so nearly on their merits as are the higher grades, and that when the cotton is distinctly below middling it is comparatively easy for the buyer to set his own price. In the extreme case cited at Mangum it is possible that the good ordinary bale which sold for 11.35 cents per pound may have been one of a small number sold at an average price and may thus have brought confessedly more than its value, but as there were 27 cotton buyers in this town it would seem that every guaranty which competition can give that no bale need be sold below its value was there afforded.

The geographical distribution of the towns in this tabulation is as suggestive as the figures themselves. In the strict low middling table we have Porter in the northeast, Okemah in the east central, Norman in the central, Wellston in the north central, Caddo in the southeast, Duncan, Waurika, and Terral in the south central, Mountain Park and Snyder in the southwest, and Erick in the extreme west of the cotton-producing section of the State. It would be difficult to select an equal number of towns which would much more thoroughly cover the geographical distribution of the important cotton production in the State.

The other tables are based on collections in fewer places, but are almost as comprehensive in their geographical representation. The western part of the State furnishes more entries in the tables on later collection dates because the crop was an early one and picking in the eastern sections was practically finished at an unusually early date. Furthermore, in many of the eastern towns so much of the cotton is first sold in the seed that an ordinary sampling would not give us any considerable number of bales of any one grade sold on the same date, the first price of which it would be possible to secure.

Summing up this feature of the investigation it may be stated that the fluctuations in prices paid for any grade of cotton from day to day, or during any one day, exceed greatly those justified by any

change in the buyer's limits or in spot transactions in the great cotton markets. If buyer and seller were equally informed as to the grade of the bales offered and if the sale of the individual bale were a matter of no more importance to the farmer than its purchase is to the buyer, such conditions could not exist. The farmer is necessarily under some pressure to sell after he has brought his bale to town. If he does not do so he has lost a day's time and has no assurance that his next attempt to sell will be productive of better results. Furthermore he is not well enough versed in cotton grading to know exactly what his bale ought to bring, or whether the price offered is a fair one. The conclusion is irresistible that the burden of the great discrepancies in the prices paid for each standard grade must fall most heavily upon those producers who are most ignorant of cotton grading and who are under the greatest pressure to sell.

Except in the latter part of the season when the grades are running very low and when tinges, stains, and spots occur which afford legitimate excuses for wide differences in judgment as to the true value of the sample, there is no excuse for failing to come within one grade of a correct classification. In a market where it is intended to treat all customers alike and to buy cotton by grade, there is no excuse for offering for two bales of identical grade prices further apart than prevailing difference sheets will justify on a range of four or five full grades.

HOW THE DIFFERENCE SHEET IS APPLIED TO THE FARMER'S COTTON.

Closely allied with cotton grading, whether this is impartially done or whether it is graded "safe," is the question of the differences to be applied to the various grades above and below middling. The whole question of the application of the difference sheet in Oklahoma appears to be in a chaotic condition. There are a number of firms dealing in cotton on a large scale, each of which issues its own difference sheets and changes the premiums and penalties on the various grades at pleasure. The form of contract, or offer, usually made to the country merchant, ginner, street buyer, farmer, or other owner of a carload lot of cotton is so much, basis middling, for the lot, "subject to our prevailing difference sheet, our grading and compress weights." In general the premiums offered by Oklahoma firms for grades above middling are about one-half as great as those of the New York Cotton Exchange. For the grades below middling the penalties are in a general way almost twice as great. This condition seems to have given rise to the opinion expressed by some independent ginners that they receive fairly good treatment as long as the grades are running around middling or better, but that when the grades begin to run low they are penalized to an unreasonable extent.

Whatever may be the facts concerning transactions between the smaller and the larger dealers, the results of our work show conclusively that the difference sheet receives little attention in fixing the price offered the grower. There is a very general tendency to hold the price for all cotton offered on a given date pretty close to a certain quotation; and, as has been pointed out, the variations in price are almost as radical between bales of the same grade as between bales of different grades.

In order to show how this works out in practice Table VI is presented, giving the results of collections of samples in 16 towns from October 26 to December 21. These towns are arranged in the order of date of sampling, and it will be seen that there is no evident relation between the differences paid for high and low grades and the differences advertised by the larger merchants as the season progresses. This table shows the number of bales sampled on each date, the grade of the best and of the poorest bale in the lot, and the difference per pound between the highest and lowest priced bales, expressed in fractions of a cent. The last column shows the difference which would have been made between the highest and lowest bales sampled if one of the local difference sheets used in the State and based upon the official cotton grades had been adhered to. In every case the actual differences in the prices paid for the best and poorest bale sampled were less than the difference sheet would have justified. In other words, the tendency to pay somewhere near the same price for all cotton offered on a given day is very marked. The entry for Lindsay is the most notable, and illustrates one of the complications which the sale of the seed and lint to the same buyer introduces into transactions which affect the bale. The facts in this case seem to be that a ginner paid for the good ordinary bale practically the same that was being paid for good middling cotton.

Such excessive payments are often made for the purpose of holding the trade of a particular farmer, especially when his seed is being sold to the gin. In these cases it is evident that the profit on the seed is relied upon to cover a loss on the lint. There is an immense amount of such business in Oklahoma, and it militates against accurate grading and proper discrimination between good and poor quality.

The prices paid for individual bales at Lindsay varied within very narrow limits each day. As a result widely different grades were often bought at the same price. On November 15 bales ranging from strict middling down to strict good ordinary spotted were bought at 11.05 cents per pound. On November 20, when the extreme range in price was $3 per bale, we found single bales of strict middling, strict low middling, and good ordinary each of which had been bought at 11.50 cents per pound.

TABLE VI.—*Actual differences between prices paid for various grades of cotton in certain markets on certain dates with the differences which would have been paid if published difference sheets had been applied.*

Date.	Place.	Number of bales sampled.	Highest grade.	Lowest grade.	Difference in cents per pound actually paid.	Published difference-sheet difference.[1]
1912.						
Oct. 26	Cordell	9	M.	S. L. M. spot.	0.50	0.625
26	Holdenville	10	G. M.	M.	.10	.25
26	Eufaula	10	G. M.	M.	.215	.25
29	Erick	12	G. M.	S. L. M.	.375	.625
29	Duncan	14	G. M.	S. L. M.	.30	.75
30	Caddo	11	G. M.	S. L. M.	.50	.625
30	Byars	12	S. G. M.	S. L. M.	.20	.25
Nov. 9	Okemah	23	G. M.	S. G. O.	1.90	2.25
11	Hobart	7	M.	L. M.	.85	1.25
11	Wellston	17	G. M.	L. M.	1.00	1.25
12	Frederick	10	S. M.	L. M.	.50	1.375
14	Davis	12	G. M.	L. M.	1.25	1.625
20	Lindsay	23	G. M.	G. O.	.25	3.00
Dec. 18	Waurika	10	S. M.	M. tinge.	.75	.8125
19	Sentinel	6	G. M.	L. M.	1.50	1.625
21	Marietta	10	M.	S. G. O. stain.	3.90	6.00

[1] A point in cotton is $\frac{1}{100}$ of a cent per pound. Hence a difference of 25 points, or $\frac{1}{4}$ cent, amounts to $1.25 per 500-pound bale.

Table VII brings out the fact that in nearly every case where the actual range in price is wider than the difference sheet would justify the range in actual grade is but slight. In no case does the range cover more than three grades, and in no case does it include anything lower than strict low middling. This shows that when the cotton is fairly uniform and very little of it is actually below middling there is a tendency to buy a certain proportion of it below its actual grade. In other words, there is a disposition to assume that the average cotton on the street is about middling and that consequently some bales, not quite equal to the best, must be below middling, and the farmer's ignorance of grading renders him practically defenseless except as competition among buyers may help him out.

TABLE VII.—*Certain towns in which on certain dates the differences in prices paid exceeded the published differences.*

Place.	Date.	Number of bales sampled.	Highest grade.	Lowest grade.	Difference in cents per pound actually paid.	Published difference-sheet difference.
	1912.					
Purcell	Oct. 28	12	S. G. M.	S. M.	0.275	0.125
Ryan	Oct. 28	10	S. M.	M.	.25	.125
Wynnewood	Oct. 29	12	G. M.	S. M.	.20	.125
Luther	Nov. 7	11	G. M.	M.	.50	.25
Okemah	Nov. 16	8	S. M.	S. L. M.	.70	.50
Norman	Nov. 23	7	M.	S. L. M.	.75	.375
Snyder	Nov. 27	17	S. M.	S. L. M.	.75	.5625

In order to emphasize the facts shown in Tables VI and VII and to show to what extent the difference sheets influence the prices paid

in typical local markets from day to day, Table VIII has been prepared, showing the results of our collections at Mountain Park on five different dates in November and at Norman on ten different dates from October 21 to December 21.

TABLE VIII.—*Range of grades sampled at Mountain Park and Norman, Okla.,*[1] *on certain dates, with range in prices paid and published differences on same range of grades.*

Place.	Date.	Number of bales sampled.	Highest grade.	Lowest grade.	Difference in cents per pound actually paid.	Published difference sheet difference.
	1912.					
Mountain Park	Nov. 4	16	G. M.	S. G. O.	1.45	2.25
Do	Nov. 11	14	G. M.	S. G. O.	1.7625	2.25
Do	Nov. 14	15	G. M.	S. G. O.	1.40	2.875
Do	Nov. 18	20	S. M.	S. L. M.	1.45	.5625
Do	Nov. 21	17	S. M.	L. M.	1.80	1.4375
Norman	Oct. 21	6	S. M.	S. L. M.	.10	.50
Do	Oct. 24	8	S. M.	L. M.	.15	1.125
Do	Oct. 26	13	G. M.	S. L. M.	.25	.625
Do	Oct. 30	13	S. M.	L. M.	.40	1.125
Do	Nov. 4	16	S. M.	M.	.55	.125
Do	Nov. 15	5	S. M.	L. M.	.25	1.125
Do	Nov. 22	12	S. M.	L. M.	.90	1.4375
Do	Nov. 29	10	M.	L. M.	1.50	1.25
Do	Dec. 7	5	M. spot.	M. tinge.	.50	.25
Do	Dec. 21	8	S. M.	S. L. M. tinge.	2.25	1.1875

[1] Special acknowledgment is made of the efficient assistance of Mr. Emil Schulze, of Norman, and Mr. C. H. Pinkley, of Mountain Park. Without such aid this table could not have been presented.

The figures for Mountain Park in Table VIII are especially significant as they show that practically the same range of prices occurred on November 18 when nothing better than strict middling nor worse than strict low middling was sold, as occurred on preceding days, when the grades ran from good middling down to strict good ordinary. In one case (November 18) with only two grades between the highest and lowest bales the difference in prices actually paid was $7.25 a bale, while in another (November 14) a difference of only $7 occurred in spite of the fact that the highest and lowest were five grades apart.

A significant fact in the data for November 21, not shown in the table, is that the highest price of the day was paid for a middling bale, although there were four better bales among those sampled. If we exclude this one high-priced bale from the tabulation, the actual price range would be 30 points less, and would then agree closely with the difference sheet.

The sampling at Norman was more comprehensive and extended through a longer period than at any other point in the State. Norman has three cotton buyers. It is on the main line of the Santa Fe Railroad and has no competing transportation line. It is in many ways typical of the small primary markets of the State. The results of the collections on 10 dates are given to show about what happens

in these small interior markets. It is very evident that there is no close relation between the actual differences paid on the street and the published differences.

In connection with these tables it must be constantly borne in mind that we have shown in each case the grades of the best and poorest bale sampled and the highest and lowest prices paid for any bales in the particular lot. It does not follow that the highest grading bale usually brought the highest price or that the lowest grading bale brought the lowest price. In fact, this is not true in a majority of the cases tabulated. In the aggregate we have found so few instances in which the differences actually paid exceeded a range permissible under prevailing difference sheets that there is no doubt that these cases are quite exceptional and in a general way occur only when there is little range in grade among the bales offered on any particular day.

The facts brought out in this chapter answer another of the questions of greatest importance to the farmer and show that no proper distinction between grades is made when he offers his cotton for sale.

A SPECIFIC APPLICATION OF THE DIFFERENCE SHEET.

An analysis of the prices and premiums actually paid for 7 bales of cotton sold in Shawnee on November 2 shows pointedly the failure of the present selling system to secure for the farmer proper recognition of superior quality. This lot of samples was found to consist of 1 middling, 3 strict middlings, and 3 strict good middlings. The middling bale brought 11.25 cents per pound, which by comparison with the prices at the ports we must assume to be a fair price. Shawnee being recognized as a premium market. Of the 3 strict middling bales, 2 brought 11.25 and 1 brought 11.35 cents per pound. Of the 3 strict good middling bales, 1 brought 11.25 and 2 brought 11.35 cents per pound each.

Now, assuming that one farmer produced all these bales, he actually lost on the 3 strict middling bales $1.35, as compared with what the local differences would have allowed him. On the 3 bales of strict good middling, which by local custom would be graded only as good middling, he received $3.05 less than he was entitled to even under local differences. He actually received a total of only $1.50 in premium above middling price on the whole 6 bales of high-grade cotton. If the New York difference sheet had been applied, allowing the premiums presumably paid by the mills for such cotton, this farmer should have received $3.60 in premium on his 3 strict middling bales and $10.20 in premium on the 3 strict good middling bales, or a total of $13.80 above the price of middling for his 6 bales, instead of the $1.50 which he actually received.

The differences established by various cotton exchanges are supposed to be based upon the supply and demand for the different grades and to be readjusted as the proportion of the different grades in each crop becomes evident. As the spinning value and waste content of grades have never been systematically worked out, there is no accurate information in existence on which a scientific difference sheet can be made.

If the difference represents what the consumer is willing to pay, these differences should be approximately uniform throughout the country. Because he can not tender them on general contract and may not be able to negotiate a satisfactory sale, the interior agent is probably justified in offering less for low-grade bales than they will bring on the exchanges. For the high grades, however, for which a premium is regularly offered by exchanges, there would seem to be no good reason why he should not offer proportionately as much above middling prices as the exchanges do. The whole question of a fair and logical difference sheet is closely allied to the question of fair and impartial grading, and such a system is never likely to come into existence and be put into general use by any of the forces now controlling the cotton industry.

Summing up this whole matter of premiums and penalties, we may say that the farmer sells his cotton subject to comparatively little variation in price in consequence of variation in grade, but that he is subjected to a process of averaging to which he is not consciously a party, which is based upon no definite consideration of his rights or interests and which must inevitably be so adjusted as to leave a hidden profit for the buyer. This system of averages is arrived at by rule of thumb, is never reduced to writing, and is subject to no supervision or adjudication.

Averaging prices on the original purchase of cotton is a vicious practice because it is impossible to equitably distribute its benefits and burdens. On each particular day of the season the man who sells a good bale receives less than he should because his price is averaged down a little to cover the loss which the buyer will sustain on the poor bale of his thriftless and indifferent neighbor. If each farm and each farmer produced good and poor bales in the same proportion, a reasonable system of averaging prices for the day would work no particular hardship, although the average price would necessarily be low enough to protect the dealer who must resell on accurate grades; but when it is remembered that many individual crops are better throughout the season than others, because of superior seed, better cultivation, prompt picking, and careful handling, it is one of the most vicious injustices of the entire cotton-handling system that an average price should be enforced against these better crops, thus

depriving the producer of the legitimate fruits of his special care and labor. By this system the careful and progressive are regularly penalized for the benefit of the indifferent and thriftless.

MARKETING THE HIGHEST GRADES.

For some reason not satisfactorily explained, the cotton trade in Oklahoma recognizes no grade above good middling. All strict good middling and middling fair bales are expected to be graded and sold as good middling. The reason for this practice is alleged to be that the higher grades are not produced in sufficient volume to permit full carlots to be concentrated for shipment. Consequently small dealers or farmers can not get a cent above good middling price for strict good middling bales, even when their actual grade is admitted by the cotton merchant. The larger dealers in turn claim that strict good middling bales accumulate so slowly that it does not pay to take account of them and that they are included in their shipments of good middling without credit or recognition.

Hoping to throw light upon this point, we have separated the figures for all strict good middling bales sampled in our market survey and have made comparisons with prices paid at the same place and date for good middling bales. We find that in many cases no distinction is made. In other cases the lower grade brings the higher price; but when the total sales of each are averaged and compared for 34 strict good middlings found in 10 towns and 59 good middlings sampled at the same places and dates, we find an average difference of 12 points in the price paid the farmer in favor of the better grade, which, in view of the almost unanimous declaration of the trade that the strict good middling grade is not recognized, must mean that a considerable number of good middling bales are bought below grade.

Our sampling began late in October, and records of comparatively few bales sold on earlier dates were obtained. The part of the crop carrying the largest percentage of high grades had already passed from first hands. Our method of selection probably gave us a larger percentage of high grades than existed in the body of the crop which was marketed while our work was in progress, but perhaps not higher than would have been found in the crop as a whole, and if this is the case the crop of Oklahoma for 1912 contained some 19,000 bales of strict good middling cotton, on which the New York differences would entitle some one to a total of over $20,000 in premiums above the price of good middling. No one in the State who was interviewed admitted having received a cent of this premium. It would seem that this item is worthy of the attention of some of the larger operators in Oklahoma, and the suggestion is made that these figures indicate a larger production of high-grading bales in the

State than is generally realized. If the testimony of the trade is to be accepted, there is absolutely nothing gained at present by producing cotton in Oklahoma which grades above good middling. It is impossible to sanction or justify a system of marketing which sets a definite limit to the desirable qualities which will be paid for, especially when other sections of the country are producing these qualities in commercial quantity and regularly collecting a premium for the superior excellence of the very highest grades.

HOW COMPETITION AMONG BUYERS AFFECTS THE PRIMARY MARKET.

It is persistently asserted by cotton buyers that no business is more openly and actively competitive than theirs. They dismiss the suggestion that any large number of growers are deprived of proper premiums on high grades with the assertion that competition is so close that such a condition could not long exist in any locality.

An exporter in one of the important Oklahoma markets assured the writers that if they could find a point in the State where strict middling cotton was selling at middling price, he would have a buyer in that town in 10 days who would buy the cotton on its actual grade.

Almost everywhere throughout the State the buyers have freely opened their records for our inspection, have given us free access to whatever cotton they had on hand, and have invited us to sample at pleasure their bales in public, private, or compress yards. Very little disposition has been manifest in any quarter to withhold any information on prices paid. In no market investigated have we discovered any evidence of combination among buyers to hold down prices, although we realize that we were in very few places for sufficiently long periods to be sure that this is not done. Certain it is that nothing came under our observation which looked like systematic robbing of the growers in any street market. There seems to be a rather general recognition of the condition pointed out by the head of an important gin and oil-mill firm, who said, in effect: "The people in our territory do not have to raise cotton. They can raise corn, live stock, and fruit, and if we can not make cotton a profitable crop for them, they will quit raising it and leave us with a lot of dead capital on our hands."

Cotton growers very generally measure the desirability of a market by the number of cotton buyers therein. A town with four buyers is generally believed to be a better market than a town with only three buyers. Our work gives us no ground for accepting this view. The figures given in the preceding tables have a tendency to raise a very serious question as to whether apparent competition in buying really has the effect on prices with which it is credited. To further illumine this point, Table IX is presented. This table is not based on a comparison of individual bales, but it shows in every case the

average price paid on a given date for all the bales of a certain grade sampled by us, and for comparison the average price of all the bales of a specified lower grade sold on that day of which samples were secured. In each case here given the average price for the lower grade was higher than that for the better grade.

TABLE IX.—*Certain places and dates at which the average price paid for higher grades of cotton was less than for lower grades.*

Date.	Place.	Higher grade.			Lower grade.		
		Number of bales.	Grade.	Average price per pound.	Number of bales.	Grade.	Average price per pound.
1912.				*Cents.*			*Cents.*
Oct. 25	Shady Point	2	G. M.	10.90	2	S. M.	10.95
26	Holdenville	4	S. M.	10.70	2	M.	10.725
30	Purcell	7	G. M.	10.86	9	S. M.	11.01
30	Caddo	4	S. M.	11.094	2	M.	11.125
Nov. 1	Noble	3	G. M.	11.47	6	S. M.	11.51
4	Norman	5	S. M.	11.32	7	M.	11.36
4	Erick	2	G. M.	10.85	3	S. L. M.	11.23
7	Luther	3	G. M.	11.17	2	S. M.	11.19
8	Cordell	3	S. M.	11.40	4	M.	11.42
9	Okemah	16	S. M.	11.73	2	M.	11.75
11	Wellston	2	S. M.	11.94	8	S. L. M.	11.95
13	Durant	3	S. M.	12.10	2	S. L. M.	12.125
14	Altus	6	S. M.	11.69	1	M.	11.75
14	Bennington	2	M.	11.75	3	S. L. M.	11.77
16	Arcadia	4	M.	11.55	3	L. M.	11.70
16	Marietta	5	S. M.	11.63	6	M.	11.65
18	Okemah	6	S. M.	11.40	2	L. M.	11.75
22	Gould	5	S. M.	12.08	2	M.	12.30
29	Hastings	2	S. M.	12.06	3	M.	12.29

Of course, it would be possible to present another table showing more numerous cases in which the average price was higher for the better grades, although in no single case which has come under our observation do the gradations of price agree closely with the differences on which purchases are supposed to be made. The numbers of bales used in the comparisons in Table IX may seem too small to furnish a fair indication of conditions, but it must be remembered that all bales showing spots, tinges, stains, or "blues" have been omitted. We again call attention to the fact that our samplers aimed to get the widest possible range of quality each day, rather than a large number of duplicate samples, so that 2 to 6 bales of a single straight grade were as many as we usually took at one place. Had we anticipated the illogical crisscrossing of grades and prices actually found we could easily have arranged for larger collections of the most numerous grades which would have given average conditions with statistical accuracy. The great value and significance of the table rests on five facts: (1) All bales were of standard grade; (2) so far as we can learn, each was supposed to be sold openly on its merits, all round lots having been omitted: (3) the showing covers the whole cotton section of the State: (4) the sampling was not done with the expectation of showing such conditions to exist;

and (5) the utter failure of competition to secure proper discrimination in gradations of prices is as much a surprise to the writers as it will be to the cotton interests themselves.

In such cases as that of Purcell, where the average price paid for 9 strict middling bales is actually 75 cents per bale more than the average price of 7 good middlings, it would appear that there is no attempt to distinguish between grades above middling, and that it is merely a matter of chance which grade happens to show the best average price. The same condition is indicated at Norman, where, on November 4, 7 bales of middling averaged slightly higher than 5 bales of strict middling. Marietta on November 16 showed a similar condition.

A failure to distinguish between adjacent high grades will not account, however, for such showings as that for Erick on November 4, when the average price paid for 3 strict low middlings was $1.90 per bale above the price paid for 2 good middlings. Here is a jump of 3 full grades, with the lower group of bales bringing a decided premium. Again at Okemah, on November 18, we have 2 low middlings bringing $1.75 per bale above the average price of 6 strict middlings, another instance of missing the proper relation between bales by 3 grades.

It is hardly credible that buyers in towns where so much cotton is handled could make such mistakes in the average grading of even one day, and the most plausible explanation which suggests itself is that the farmer must insist upon actively developing the latent competition in the town if he is to profit by it. In other words, the first offer made may have little regard to the real value of the bale. The offer may also be influenced by the known necessities or obligations of the seller.

TABLE X.—*High-grade bales selling for less than low grade and amount of premium these should have brought.*

Date.	Lower grade.			Higher grade.			Total penalty on good bales.	Difference sheet premium for these bales.	Loss to growers.
	Number of bales.	Grade.	Average price per pound.	Number of bales.	Grade.	Average price per pound.			
MANGUM, OKLA.									
1912.			*Cents.*			*Cents.*			
Nov. 7	5	S. L. M..	11.50	3	S. M.....	11.41	$1.35	$7.50	$8.55
11	1	S. L. M..	11.85	5	S. M.....	11.75	2.50	12.50	15.00
12	2	S. L. M..	11.61	3	M.....	11.58	.45	5.63	6.08
Dec. 13	4	O.....	10.81	1	L. M....	10.50	1.55	13.75	15.30
MOUNTAIN PARK, OKLA.									
Nov. 4	4	M.....	11.49	5	S. M.....	11.47	$0.50	$3.23	$3.73
11	2	M.....	12.03	7	S. M.....	11.87	5.60	4.38	9.98
18	6	L. M....	11.09	5	M.....	10.98	2.75	31.25	34.00
21	3	M.....	11.60	4	S. M.....	11.49	2.20	3.75	5.95

In Table X we have presented for the towns of Mangum and Mountain Park the same information which Table IX carries for other points except that the results of four collections are shown in each case and the figures have been extended to show the actual loss on the better bales, assuming that the lower grades were properly priced and applying the same difference sheet used in the foregoing tables and discussion. The loss to growers shown in the last column is the total loss on the number of highest-grade bales shown in the fifth column.

Mountain Park has only 2 buyers, but Mangum has 27 street buyers and we must assume that everything which competition can do to force proper respect for quality is done in Mangum. If there is a point in the State where competition in buying should yield its greatest boon to the producer it is here. How then are we to account for such a reversal of qualities and prices as is here shown? By what operation of the competitive principle does it happen that a low middling bale can be bought for $1.55 less than the average price of 4 ordinary bales, when by the published differences of the trade it should bring $13.75 more than an ordinary bale?

In connection with this showing attention is again invited to the preceding tables in which Mangum appears. It will be seen that every sort of irregularity in pricing and grading found in the smaller markets occurs also in Mangum. There is the same wide range of prices on a given day for identical bales, the same failure to observe any fixed scale of differences, and finally this showing in which low grades actually bring more than higher grades. At Mountain Park, where there are only two regular buyers, and where the farmers complain that they do not have a competitive market, the conditions appear to be no worse than in Mangum.

A study of these facts leads to the conclusion that prices on individual bales are fixed by some consideration into which local competition for the cotton does not enter appreciably. In a majority of cases the actual grade of the particular bale does have a real influence on its price, but not to the extent that it does in later transactions between dealers.

We are forced to believe that the individuality of the man who offers the cotton for sale is a more potent factor than it should be. The buyers, even in the most competitive markets, seem to ask themselves, "How much must I pay to get this cotton?" rather than "What is this bale worth on today's market?" In other words, competition is fully as manifest in efforts to buy a bale for less than someone else paid for a similar bale, as it is in a disposition to "raise the other fellow's bid."

Running from one buyer to another, perhaps two or three times, haggling to get the last bid raised by a few points, is very distasteful to a large number of farmers who will not assume the attitude of begging for a few extra cents. Driving from office to office with a bale or two of cotton takes time and patience. Repeated sampling may tax the bale perceptibly. There are many reasons why the producer should accept about what the bale is worth and drive on to the yard and get rid of it. Any buyer will assure him that they all have about the same limits and any higher bid he might get could amount to only a few cents.

Furthermore, the buyers must get along together on terms of general amity and good fellowship. They have much more in common with each other than any of them have with the growers. If one buyer is making a special effort to get together a shipment of a certain quality he can well afford to reciprocate any courtesy which his competitors may show in declining to outbid him on that particular grade or quality.

There is some evidence that a responsible producer will sometimes receive a better price if he leaves his bales at home and sells by sample. The presence of the bale in town is pretty nearly a guaranty that it will be sold to some one before night. Holding the bales at home gives an impression of independence not always lost upon the buyer, who instinctively recognizes such a patron by making a thoroughly businesslike bid, offering all the inducement the market will justify to bring the bales into sight.

PURCHASE OF COTTON BY GENERAL MERCHANTS.

In some parts of Oklahoma, especially along the northern edge of the cotton-producing area, where cotton is grown in rotation with other farm crops, the plantings ranging from 5 to 20 acres per farm, the marketing system is very different from that which obtains where cotton is the principal crop, largely grown by tenants and pledged in advance for perhaps its entire cost of production. On these mixed farms cotton is not the only money crop. In fact, in many cases it is not even the principal crop, but it is the crop most quickly and easily converted into cash.

In these regions a bale of cotton is handled very much as a basket of eggs is sold in the Central West; that is to say, it is sold to a general merchant in the nearest town or village, usually a merchant with whom the farmer has an account. Incidental to the purchase of the bale the merchant may collect a bill, or if the farmer does not owe him anything the merchant is very likely to make a sale in which a profit of at least 20 per cent on goods will be involved. Some of the largest cotton dealers in Oklahoma have assured us that between

many of these small towns there is keen rivalry as to which shall win the reputation for being the best cotton markets, and that the local merchants deliberately pay more than the cotton is worth because of the incidental bill collecting and cash trading involved in such transactions. Although the larger firms have resident buyers in many of these towns, they make it a rule to purchase no cotton on the streets, but "take up" the cotton from the merchants at night, often, they claim, at an average of $1 or $2 per bale less than the merchants have paid for it. They say that they can buy the cotton from the merchants cheaper than they can buy it in competition with them.

It is easy to see that where cotton is made practically an article of barter and exchange in this way we can hope to have no close discrimination between grades nor a scale of prices based upon the real value of the cotton. The merchant who is buying cotton as a means of collecting open accounts and securing general trade and good will for his store will very naturally gauge his offer by the value of the farmer's good will, rather than by the exact grade of his cotton.

FLUCTUATIONS OF PRICES IN PRIMARY MARKETS.

In most of the towns in Oklahoma, where the quantity of cotton sold runs into the thousands of bales, the greater portion is bought either by the ginners or by men who deal in cotton exclusively. The buyers who represent large exporting interests receive daily purchasing limits, and the quotations of the Galveston exchange are usually made public every morning.

In a general way it would be natural to suppose that the prices paid in primary markets for cotton possessing no quality which will demand a premium would be the Galveston quotation, less freight, and possibly one or two commissions. A large portion of the Oklahoma crop does, however, command a premium, and the differences between the prices received for middling cotton in many Oklahoma towns and the Galveston quotation on middling will not cover freight. Nevertheless, all Oklahoma markets might be expected to rise and fall in sympathy with Galveston. Our sampling was not such as to give us a satisfactory statistical showing on this point for the whole State, but we have presented in Table XI the results of our collections in five towns during the period in which the price of cotton was almost steadily advancing.

TABLE XI.—*Relation of price of middling cotton at Oklahoma points to Galveston price.*

Place.	Date.	Number of bales.	Average local price per pound.	Galveston price per pound.	Difference in price per pound.	Freight per 100 pounds to Galveston.
	1912.		*Cents.*	*Cents.*	*Cents.*	*Cents.*
Duncan	Oct. 25	4	10.55	11.00	0.45	68½
	Oct. 29	4	10.64	11.19	.55	68½
	Nov. 6	3	11.29	12.00	.71	68½
Ryan	Oct. 26	13	10.72	11.19	.47	59½
	Oct. 30	5	11.13	11.25	.12	59½
	Nov. 6	4	11.43	12.00	.57	59½
Norman	Oct. 25	7	10.75	11.00	.21	71½
	Oct. 30	9	10.81	11.25	.44	71½
	Nov. 4	11	11.33	11.75	.42	71½
	Nov. 15	2	11.00	12.13	1.13	71½
Mountain Park	Oct. 30	2	10.68	11.25	.57	76½
	Nov. 4	4	11.54	11.75	.21	76½
	Nov. 14	7	11.24	12.13	.89	76½
	Nov. 18	5	10.99	12.00	1.01	76½
	Nov. 21	3	11.60	12.25	.65	76½
Marietta	Nov. 16	5	11.67	12.00	.33	52
	Nov. 23	4	12.09	12.38	.29	52
	Dec. 20	2	12.00	13.00	1.00	52

In a general way we have presented the figures for each town during a period within which the Galveston price advanced approximately 1 cent.

In this tabulation we have included only bales which graded exactly middling on the official classification and have averaged the price of all such bales sampled and have compared this average with the closing Galveston quotations of the preceding day.

It will be noted that while there are some irregularities, there is a very general widening of the difference between port and interior prices as the port price advances. In other words, while the interior market does respond to a rise in Galveston quotations, it responds rather slowly, and as long as cotton is going up in Galveston the margin which the interior buyers allow themselves appears to constantly increase.

In the case of Duncan, it will be noted that with the Galveston quotation at 11 cents on October 25, the average street price was 10.55 cents, or 45 points below Galveston. Two weeks later when the Galveston price had reached 12 cents, the average price in Duncan was 71 points below instead of 45.

The dates of collection in Ryan are closely comparable with those for Duncan and the figures are based on the average price of a larger number of bales. They show a similar tendency, though not quite so marked.

The comparison for Norman is carried up to November 15. By this time the Galveston quotation reached 12.13 cents, and the difference was five times as great as on October 25.

More irregularities appear in the figures for Mountain Park than in those for the other towns, largely because of the great variation between the highest and lowest price paid for middling cotton on the street from day to day and in transactions on the same day. In other words, it is hard to tell just what the average price of middling cotton in Mountain Park really is. Even here there is no question that the average prices paid were closer to Galveston prices when cotton was below 12 cents than they were after the quotation reached this point and began to go higher.

There were no collections made in Marietta until rather late in the season, so that the comparison here is for sales from November 16 to December 20, during which period the quotations in Galveston rose from 12 to 13 cents, with the result that whereas Marietta on November 16 was paying within one-third of a cent of the Galveston quotation on December 20 she was paying a full cent less.

All of these figures seem to indicate rather pointedly that the grower does not receive by any means the full benefit of a rise in prices at the port, the price which is offered him being advanced rather slowly and grudgingly. While this work was in progress there was no period of as much as one month within which there was anything like a steady decline in prices at the ports, so that we are not able to give equally significant figures on the downward course of the prices in primary markets in response to declining quotations. The table furnishes only one suggestive instance and that is the comparison between the conditions on November 14 and November 18 at Mountain Park. On the earlier date the average price of 7 bales of middling cotton was 89 points below Galveston quotation. Four days later when Galveston had dropped 13 points, the average price of 5 bales of middling in Mountain Park was 101 points below Galveston. This looks as though a decline in port prices is reflected by a decidedly sharper decline in the interior.

THE INFLUENCE OF STAPLE ON PRICE IN OKLAHOMA.

A section of southeastern Oklahoma extending from Durant to Fort Towson produces staple cottons similar in quality to those marketed at Paris and Clarksville, Tex. In these towns any cotton above 1 inch in length brings a premium. Outside of this territory practically no attention is paid to the length of staple in determining the price which will be paid to the producer.

In a general way the cotton marketed at certain points brings more than the cotton marketed at other points because one locality is reputed to produce a little better staple than the other. These differences in reputation apply also to compress points. Certain large cotton-handling interests regularly pay slightly higher prices for cotton shipped from certain compresses than for cotton of equal

grade from other compresses because it is believed that the territory of the one produces a slightly better staple than the territory of the other.

The larger cotton firms secure from each of their traveling buyers a number of samples from each district covered. These are sent in each year as soon as the cotton begins to move. They are carefully stapled and an estimate made of the per cent of bales of 1 inch, $1\frac{1}{16}$ inches, and $1\frac{1}{8}$ inches which the district will furnish from the current crop. On this estimate the limits given the buyers are based. If the buyer finds that he can not secure much cotton at the limits set, he concludes that other firms have been better pleased than has his own with the samples from that district and he submits further samples, hoping for a higher limit. While the average staple lengths of the district are thus carefully considered, no attention is paid to the staple of the individual bale in fixing its price.

In a general way the eastern half of the State is believed to produce a better staple than the western half, and instances have been known in which buyers, although guaranteed a certain length of staple by the sellers, or after accepting certain types as satisfactory, have stipulated that the cotton must originate east of the Santa Fe Railroad, when the very types which they had accepted were drawn from bales produced in the western part of the State.

In order to show just how much difference in staple there is between the cotton in the eastern and western parts of the State the following figures from six towns may be of interest.

Shawnee is one of the markets in which all cotton brings a slightly higher price than in most other towns because of its reputation for producing a good staple. Twenty bales marketed in October and November and representing a wide range of grades were carefully stapled, with the following results: In 2 bales the staple was found to be $\frac{15}{16}$ of an inch; in 15 bales it was exactly 1 inch; in 1 bale, $1\frac{1}{32}$ inches; and in 2 bales, $1\frac{1}{16}$ inches. In other words, three-fourths of the bales sampled were found to be exactly 1-inch cotton. The stapling of all the samples here described was done strictly on the basis of what would be accepted for the lengths named by a critical New England purchaser. In ordinary commercial transactions between dealers and exporters in Oklahoma the staple claimed and allowed for local cotton is slightly greater than here indicated.

At Ada samples from 32 bales sold by one dealer to another on October 2 were found to contain 2 bales of $\frac{7}{8}$-inch, 8 bales of $\frac{15}{16}$-inch, 17 bales of 1-inch, and 5 bales of $1\frac{1}{32}$-inch cotton. These were an even-running, high-grade lot of bales, sold at a uniform price, but it is evident that the staple had been entirely disregarded in the transaction.

Samples from 58 bales collected at Okemah from sales made in October and November were stapled and it was found that 13 bales were of $\frac{15}{16}$-inch, 37 bales of 1-inch, 2 bales of $1\frac{1}{32}$-inch, 5 bales of $1\frac{1}{16}$-inch, and 1 bale of $1\frac{3}{32}$-inch cotton. It will be noted that in the case of each of these three towns there are more bales of 1-inch cotton than of any other length, and that in the aggregate the number of bales falling below 1 inch is greater than the number in which the cotton exceeds that length.

For comparison with these figures the lengths of staple observed in three towns in the western part of the State are of interest. Forty-one bales sampled in Snyder during October and November comprised 15 bales of $\frac{7}{8}$-inch, 23 bales of $\frac{15}{16}$-inch, and 3 bales of 1-inch cotton. The 77 bales sampled at Erick during the same period contained 3 bales of $\frac{13}{16}$-inch, 19 bales of $\frac{7}{8}$-inch, 19 bales of $\frac{15}{16}$-inch, 35 bales of 1-inch, and 1 bale of $1\frac{1}{32}$-inch cotton. In 51 bales marketed at Mangum during the month of November there were found to be 2 bales of $\frac{13}{16}$-inch, 9 bales of $\frac{7}{8}$-inch, 25 bales of $\frac{15}{16}$-inch, 11 bales of 1-inch, and 4 bales of $1\frac{1}{32}$-inch cotton.

It will be seen that in the western part of the State there are more bales of $\frac{15}{16}$-inch than of any other length and that there were almost exactly as many bales above as below this length.

This fact might be emphasized by the preparation of elaborate tables, but it is sufficient for the purpose of this discussion to state that the samples from over 3,000 bales collected from every part of the State were stapled, with the general result that the regions in the eastern part of the State which have a reputation for good staple were found to have an actual average advantage of about $\frac{1}{16}$ inch. Outside of the small district previously mentioned, lying near the Red River, in the southeastern part of the State, it may be said in general that there are no two important cotton-producing regions in the State between which an average difference of more than $\frac{1}{8}$ inch in length of staple occurs and it is probably safe to say that there are no two compresses in the State the cotton from which will show an average difference of much over $\frac{1}{16}$ of an inch throughout the season.

SELLING COTTON IN THE SEED.

The sale of unginned cotton directly to ginners, who are usually closely allied with the oil-mill interests, is still an important factor in the marketing of the Oklahoma cotton crop. In the pioneer stage of cotton production in this area this custom was much more prevalent than it is at present, and under certain conditions there is much to recommend it. When cotton is grown experimentally or on small areas in communities which can not furnish an adequate picking force, it is often a difficult matter for a farmer to accumulate enough seed cotton to make a 500-pound bale, and the picking of

such an amount may extend over such a period that the quality of the cotton will not be uniform. If the ginner stands ready to purchase all seed cotton which may be brought to him, the farmer has a ready cash market for whatever quantity he may find it convenient to sell at any time.

The individual grower is seldom able to dispose of his seed to good advantage in regions of scanty production, and if he has his bale custom ginned he may have to sell his lint in an equally restricted market. In fact, he may have to leave his bale with the ginner or at the railroad station until enough cotton has accumulated to attract some itinerant buyer, who will pretty nearly fix his own price.

As the culture of cotton has become more general, the proportion of the total sold in the seed has constantly decreased, but there are still many localities of considerable production where there are no regular buyers for lint cotton, and where the ginners make every effort to discourage the practice of custom ginning.

The principal advantage which the sale of seed cotton offers to the farmer under normal conditions is the saving in time of men and teams while waiting their turn at the gin and in selling the bale on the street. The ginner who buys in the seed usually has considerable storage space in connection with the gin, with pneumatic unloaders, so that there is little delay in making the sale. The load is superficially inspected, driven on the scales, and weighed; the cotton transferred by suction to the storage house, the wagon reweighed, the check drawn for the cotton, and the transaction closed. This immediate sale, without discrimination against large or small loads, has a distinct value in a region and at a season when wages are high, and when delay in picking the crop entails serious loss.

This seems to be about the only advantage derived by farmers as a class from the sale of cotton in the seed. So far as individuals are concerned it results favorably to the man whose cotton will make a low-grade bale and unfavorably to those bringing in the better grades. Whatever advantage there may be in bulking and curing out the cotton before ginning is earned in this case by the ginner, and the farmer has no share in it.

As applied to the industry as a whole, the effect of this system is bad, because the prices paid can not be made to vary accurately in accordance with the varying quality of the cotton, and at best the price must be based on the average lint percentage of the community. This, of course, places a direct penalty upon the man who plants a variety with a high lint percentage, and gives a corresponding advantage to the man who raises the cotton which will produce the greatest number of pounds irrespective of lint outturn or quality. In other words, it puts a direct impediment in the way

of all improvement based on better varieties. It makes far more difficult the saving of seed from any one variety, as the ginner must not only break away from his habit in order to gin a bale for seed, but must also drop his rolls and subject himself to a degree of inconvenience which he considers even more burdensome than does the custom ginner. The tendency to plant ordinary mixed seed from oil-mill and public gins, which is difficult enough to combat under the most favorable circumstances, is much more marked in communities where the crop is sold in the seed.

The moral effect of the practice is bad, in that it tempts the farmer not only to indifference concerning the amount of dirt, trash, or dampness in the seed cotton which he sells, but distinctly rewards any success he may have in deceiving the ginner on these points. The ginners, on the other hand, knowing that they will be imposed upon in this particular, definitely count on a large percentage of dirt, and of course govern their offers accordingly. Thus, again, the honest and the efficient are penalized because of the delinquencies of the dishonest and inefficient.

The purchase of seed cotton is closely tied up with the oil-milling business and in many sections of the country a very considerable charge for buying expenses is made against all seed used. In the newer cotton regions, when seed was produced in comparatively small quantity and had to be shipped considerable distances to oil mills, it was perhaps not unreasonable for the ginner in the early days to expect to receive all the seed as his pay for ginning the bale. With the present development of transportation facilities in Oklahoma and the large number of oil mills operating in the State it can not be considered otherwise than as an exorbitant price when an oil-mill ginner gives a customer the full market value for his lint cotton, reserving the seed as the price of ginning service, bagging, and ties. The usual cash charge for ginning and wrapping a bale is $3.50. Estimating 1,000 pounds of seed, seldom worth less than $14 per ton, for each bale of lint, it will be seen that this amounts to an overcharge of 100 per cent. There is a measurable quantity of cotton still sold in the seed on this basis.

Competition for the seed seems to be fully as well developed as competition for the lint, but does not always manifest itself in a way which is advantageous to the producer. On the contrary, where the country is fairly well occupied by oil-mill gins, it is rather difficult for an independent ginner to secure a footing, and where there is not sufficient competition among these gins pressure is sometimes put upon the growers to sell their cotton in the seed. The growers believe that in some cases the ginners are in the habit of running out the rolls very clean in advance of a custom-ginned bale and leaving the rolls very full when such a bale is finished. In a 4-stand ginnery

it is easily possible to rob the grower of from 5 to 20 pounds of lint cotton in this way. Another trick is to manipulate the gin so as to let the seed pass through without thorough ginning, thus decreasing the weight of the custom-ginned bale and discouraging the practice. In other cases the pressure is applied by charging an exorbitant price for custom ginning.

It is only fair to state that some of the most important and progressive oil-milling interests in the State are opposed to the purchase of seed cotton and claim that they do so only where competition or the demand of the growers themselves make it necessary. These men claim that the growers invariably get the best of the bargain by bringing an excessive amount of dirt to the gins in the cotton. Occasional instances are vouched for in which loads of cotton have contained layers of sand evidently shoveled in directly from the field or the roadside. The ginners seem to find it impracticable to run the seed cotton through a cleaner except in connection with the ginning of the bale, so that they have no good opportunity to convince the farmer as to the amount of dirt in a bale which is unloaded into the storage house.

After a severe storm which beat out a large quantity of cotton, partially covering many locks with earth and sand, a load of seed cotton weighing about one ton was brought to a gin in eastern Oklahoma from which 600 pounds of dirt were removed. Instances of 250 pounds to the load were by no means exceptional. When cotton of this kind is being bought by the pound gross it is evident that the ginner must use a scale of prices which will enable him to handle it with safety, and that these prices must discriminate against the best loads of cotton which he buys.

Under present conditions the general practice of selling in the seed can not be too strongly condemned, although a very material saving in time of men and teams might be effected by a system of cooperative pooling of cotton in storage at the gin. If in connection with such a system all cotton unloaded into the seed house was passed through a cleaning device and graded into about four classes according to the amount of trash contained, it would seem possible to gin out of these various lots a considerable number of even-running bales which could be sold for or by the farmers to much better advantage than the individual bales can now be sold. It would seem that this particular phase of the cotton-marketing situation offers an inviting field for cooperative effort.

MARKETING "BOLLY" AND "GATHERED" COTTON.

The climatic conditions of Oklahoma and parts of Texas are such that an early frost does not have such a disastrous effect on the cotton crop as in the older part of the cotton belt. Much of the

cotton in Oklahoma and west Texas is grown at an elevation of 1,200 feet or more above sea level, with a comparatively light autumn and early winter rainfall. During much of this period there is also a brisk breeze. Under these conditions, cotton bolls which are frozen before opening dry out rapidly and, even though quite immature, crack and partially open. In the more humid sections of the cotton belt such bolls usually mildew and seldom open so that the cotton can be picked in the ordinary way, yet under Oklahoma conditions a lint of very fair quality is secured from all except the most immature of the bolls.

As originally understood, the term "bollies" applied only to cotton from bolls which had not opened sufficiently to permit the lint to be picked in the ordinary way. These bolls were, of course, quite immature when frozen and the lint was not equal in quality to that harvested earlier in the season. Furthermore with the machinery formerly available for ginning and the imperfect mechanical devices for crushing and extracting the bolls, bolly cotton was of exceedingly low grade, carrying more stem, leaf, and boll fragments than any type of cotton previously on the market. Various cotton exchanges and most of the large exporting firms dealing in western cotton, therefore, stipulated that bollies would not be received on contract, and no matter what their quality may be, bollies are not now considered a legal tender in a cotton transaction.

Changing conditions of production and improved boll separators and cleaning devices at the gins have changed the original situation very materially. The farmers finding that a frost before the maturing of the cotton is not so serious a matter as farther south and in lower altitudes, deliberately plant cotton with the expectation that a considerable proportion of the crop will be frozen in the field. As the weather becomes too cold to permit picking with bare hands, gloves are worn and the fully matured and wide open bolls are gathered together with the lint. The immature bolls that have not dried out sufficiently to admit of ginning may be left for a later picking. Of course, the cotton in these open bolls is just as good as though it had been picked in the ordinary manner, and when a load of such cotton is put through the hulling and cleaning attachment of a well-equipped, modern ginnery, a surprisingly good grade of cotton is secured. There appears to be no reason why such cotton should be discriminated against simply because the grower finds it practicable and convenient to separate the cotton from the bolls by machinery at the gin instead of by hand in the field. Such cotton is often called "gathered cotton" to distinguish it from true bolly cotton. Since the cleaning devices of the gins have been so improved as to secure a fairly clean bale from a mixture of cotton and bolls there

is a tendency to increase the amount of gathered cotton. It is probable that all bolly cotton now contains more naturally opened bolls than was the case when the ginning of bollies was first undertaken. In other words, the quality of bolly cotton has decidedly improved since it first appeared on the market.

Ginning bollies is a comparatively slow process, and when custom ginned the charge is necessarily greater than for picked cotton. In consequence there is a very general disposition to sell bollies and gathered cotton in the seed, and the larger ginning companies do a considerable business in such cotton, the bales being sold on sample, thus avoiding the discrimination which would be made against them if they were offered as bollies. There are large ginneries in western Oklahoma which for months at a time use only an occasional shovelful of coal, firing their engines almost exclusively with the bolls from the cotton ginned.

There is perhaps less to be said against the sale of gathered cotton or bollies by the ton gross than there is against the practice of selling picked cotton in the seed. The fact that such cotton can be readily sold is a boon to the planter in a region of high wages, because it enables him to harvest his crop with less cash outlay, as the labor of the farm force can be spread over a longer picking season. If, when he takes such a load of mixed cotton and bolls to the gin, he can make a prompt sale at a price which leaves him a fair margin of profit, there are many reasons why he should do so rather than pay a high price for his ginning when he knows that his bale will be discriminated against by any buyer who has reason to believe that it is a bolly. In other words, the grower is not in a position to sell such cotton so nearly on its merits as is the larger operator.

On the other hand, it is no secret in the trade that bollies are purchased by the ginners at a price which leaves them an excellent margin of profit. They are not so easy to handle as cotton picked in the ordinary way; they are bulky, and the available storage space at the gin is soon filled. As a consequence it is by no means rare to see large piles of bollies which have been purchased by the ginners lying out of doors, entirely unprotected from the weather. Of course every snow and rain stops the ginning from such a pile and results in more or less deterioration. In short, the handling of bolly cotton is liable to be attended in the aggregate with considerable losses, all of which must be allowed for in the price offered.

The establishment of a regular market for gathered cotton has resulted in attempts by the growers to expedite harvesting by various crude mechanical methods. In the western part of the State a sled was used equipped with teeth to comb the bolls from the stalks. This device, of course, gathered not only the unpicked cotton and

unopened bolls, but also the empty pods from which the cotton had been picked by hand earlier in the season. This made it necessary for the ginners to separate the cotton from about twice the amount of bolls and trash which would be present if the bolls had been gathered from the stalks by hand.

At least one farmer whose previous experience had been in the wheat-growing regions of the Northwest, after picking the greater portion of his crop in the ordinary way and finding that what remained after the beginning of cold weather was all near the top of the stalk, went over the field with a wheat header, cutting off the tops of all the plants at a given height and brought this material to the gin.

The cotton harvested by these methods was actually put through the gin, baled, and sold, but the ginning process is so slow that the ginners generally refuse to handle sled-picked cotton.

In this connection it is only fair to say that there is probably no State, with the possible exception of Texas, in which the equipment and efficiency of the average ginning establishment is so excellent as in Oklahoma. Our observation leads us to doubt whether 10 per cent of the ginning establishments in the southeastern portion of the belt could operate at all upon such cotton as a majority of Oklahoma gins handle throughout a considerable part of the season. We are inclined to believe that the average load of hand-picked cotton which is brought to the average Oklahoma custom ginnery results in a bale at least one grade higher than would be obtained from the identical cotton if it were put through one-half of the gins operating in the Carolinas.

The larger cotton merchants of Oklahoma complain that there is no proper recognition by the trade of the fact that Oklahoma cotton contains less sand and gives less invisible loss in the mill than the cotton of any other section. The almost universal use of modern cleaning devices in Oklahoma ginneries and a general absence of such devices in many other portions of the cotton belt lead us to believe that the superiority claimed for Oklahoma cotton actually exists.

With facilities for getting the highest grade which can be secured from the cotton on the farmer's wagon, it seems both unfortunate and unreasonable that no marketing system has been worked out which gives him the full advantage in price to which this superior quality is entitled. In other words, with a mechanical equipment for ginning and baling which is superior to that found in any other portion of the cotton belt, the resulting high-grade bales are sold in the primary markets almost without regard to actual grade.

It is our purpose to continue this survey during the season of 1913 on a somewhat different plan with a view to obtaining reliable statis-

tics of the proportion of the different grades in the total crop of the State and of the average relative prices received for these grades during the entire season. This will also give an accurate record of the rise and fall of prices in the interior as compared with prices at the ports and on the larger exchanges. If successful in obtaining this information we should have a fairly accurate measure of the aggregate loss to the growers in the State from failure to secure proper grading at the time of sale, and we shall be in a position to give accurate advice as to the savings which may result from organized cooperative handling and marketing among the farmers.

SUMMARY.

1. This market survey included 103 towns in Oklahoma and involved the sampling of over 3,200 bales of cotton with records of date and place of sale and price paid to the grower. It also involved the careful grading and stapling of these samples.

2. While the survey was in progress much information concerning ginning and marketing practices was obtained.

3. The ginners, who buy a large proportion of the cotton, pay very nearly the same price for all cotton purchased on a given day whether buying in seed or in the bale.

4. In street markets, even where there are large numbers of buyers, widely differing prices are paid on the same day for bales of identical quality. There is no uniform price even for middling cotton.

5. The differences fixed by Oklahoma firms allow only about one-half as much premium for grades above middling as do the differences of the New York Cotton Exchange. This should not be construed as in any way approving the New York fixed difference system.

6. In actual street buying the premiums paid for bales grading above middling are far less than the locally advertised differences for such grades. In some cases the bulk of the cotton is bought as middling for weeks at a time, when a large majority of the bales are actually above that grade.

7. Accurate knowledge of cotton grading is of little value to the producer in marketing his individual crop under present conditions.

8. Independent ginners and local merchants who buy cotton are usually compelled to accept the grading of the larger firms when their cotton is "taken up."

9. Except in the southeastern part of the State no attention is paid to length of staple in fixing the price of the individual bale, but certain regions receive slightly higher prices than others because of reputed superiority of average staple.

10. The cotton trade in Oklahoma recognizes no grade above good middling although many thousand bales of higher grade are produced.

11. The practice of selling in seed saves time of men and teams at the gin, but encourages careless and dishonest practices on the part of both producer and ginner.

12. Prices paid to farmers both for seed cotton and for lint are too largely based on a system of averages. This works great injustice to the producers of the best grades and discourages improvement of varieties in percentage of lint yield and in length of staple.

13. The greatest losses to the farmers under the present system of marketing appear to lie in their failure to secure the premium for their high grades which these bales finally bring.

14. No relief from this condition can be expected while grading is wholly in the hands of the buyers. As long as this is the case the cotton will never be closely graded until after it has left the growers' possession.

15. Cooperation among growers, if properly organized, would probably furnish some measure of relief, but under present conditions a rather expensive selling department would probably be necessary.

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